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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,629	04/24/2001	Hyun-Soo Paik	A34238	5456
21003	7590	11/01/2004	EXAMINER	
BAKER & BOTTS 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				IYER, RAMAKRISHNA R
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/841,629	PAIK, HYUN-SOO	
	Examiner	Art Unit	
	Raju Iyer	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 April 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-3 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 24 April 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. 09/841629.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/19/2001</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is too long (more than 150 words). Lines 18-22 in the abstract need revision, as it is not clear what is implied by the text. The text in the abstract should also be examined carefully for other possible improvements. Correction is required. See MPEP § 608.01(b).
2. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph.

Examples of some unclear, inexact or verbose terms used in the specification are given below:

- Acronyms such as "Utopia", "SGRAM", "VPI/VCI", "ABR", "LIU" etc. are used extensively without any explanation as to their meaning. It is recommended that all acronyms be explained clearly, the first time they appear in the text.
- Lines 1-7 on page 2 should be re-written.
- It is not clear what lines 8-12 (page 2) intend to convey.
- Page 4, the term "AMT" is an error.
- Figure 1 shows one clock generator 16, but figure 2 has four clocks, 108, 120, 122 and 130.

- Page 5, 130 is referred to as the third clock in the text, and identified as fourth "OSC" in figure 2.
- The "operational flow" described in pages 5-7 is difficult to follow and not very clear in explaining the operation.

3. The use of the trademark (e.g. specific products such as, PM 73487, PM7324, MC 68360) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For example, the specification does not explain:

- Details on "processing and outputting a virtual path and virtual channel";
- Details on "processing a routing path of the input cell data";
- Details on "downloading program data from outside"; as recited in Claim 1.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,058,114 ("Sethuram et al"), in view of Patent No. 6,442,167 ("Aramaki et al").

Regarding Claim 1, Sethuram et al disclose an ATM "segmentation and reassembly (SAR)" controller that does ATM Adaptation Layer Processing and ATM Routing Processing (see figures 9 &10, and pages 9-12 of the patent), that is connected to an UTOPIA input interface at one end, an UTOPIA output interface at the other end, and to an external controller (host processor) via a system bus. Sethuram et al do not disclose expressly that the output is connected to an ATM Switch interface.

Aramaki et al, in their patent, disclose an ATM cell assembly/disassembly unit that does ATM Adaptation Layer Processing and ATM Routing Processing (see figures

1 & 2 and pages 3 & 4) that is connected to an ATM switch at one end and a Frame Relay terminal at the other end, and is also connected to an external controller.

A person of ordinary skill in the art would have been motivated to employ Aramaki et al in Sethuram et al, in order to have an ATM Adaptation Layer Processor and Routing Processor connected to an ATM switch at one end and an Utopia interface (for connecting to an ATM facility at the other end), so that services being provided over an ATM facility (rather than a Frame Relay facility) could connect to an ATM switch for routing over an ATM network.

At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to combine Sethuram et al with Aramaki et al (collectively "Sethuram-Aramaki") to obtain the invention as specified in Claim 1.

9. Claim 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sethuram-Aramaki in view of PMC-Sierra, Inc. publications: a) Product Data Sheet for PM7324 and b) PM7324 S/UNI-ATLAS SPORT Card Reference Design ("PMC-Sierra").

Regarding Claim 2, PMC-Sierra expressly discloses two interfaces on the PM7324 chip for connecting two external SRAMs, one SRAM connecting to an Ingress Cell Processor, and the other to an Egress Cell Processor (see block diagram in Product Data sheet).

A person of ordinary skill in the art would have been motivated to employ PMC-Sierra in Sethuram-Aramaki, in the design of an interface solution using the PM7324 chip, since it is an implementation of the recommended design practice from the

supplier of the product. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to combine PMC-Sierra with Sethuram-Aramaki to obtain the invention as specified in Claim 2.

Regarding Claim 3, PMC-Sierra expressly discloses in the reference design, a JTAG clock connecting to the PM7324 and the same clock going to the PM73487 (see Schematic 1 in Reference Design Document).

A person of ordinary skill in the art would have been motivated to employ PMC-Sierra in Sethuram-Aramaki, in the design of an interface solution using the PM7324 chip since it is an implementation of the recommended design practice from the supplier of the product. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to combine PMC-Sierra with Sethuram-Aramaki to obtain the invention as specified in Claim 3.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see attached list).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raju Iyer whose telephone number is (571) 272 6047. The examiner can normally be reached on 7.00 a.m. - 4.30 p.m. on all weekdays, excluding every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272 3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJ

Chau T. Nguyen

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